

SEQUENCE LISTING

(1) GENERAL INFORMATION

- (i) APPLICANT:
- (ii) TITLE OF INVENTION
- (iii) NUMBER OF SEQUENCES
- (iv) CORRESPONDENCE ADDRESS
- (v) COMPUTER READABLE FORM
 - (A) MEDIUM TYPE: Floppy Disk
 - (B) COMPUTER: IBM PC Compatible
 - (C) OPERATING SYSTEM: MS-DOS
 - (D) SOFTWARE: Microsoft Word
- (vi) CURRENT APPLICATION DATA
- (vii) ATTORNEY / AGENT INFORMATION
- (viii) TELECOMMUNICATION INFORMATION

(2) INFORMATION FOR SEQ ID NO:1:

- (i) SEQUENCE CHARACTERISTICS
 - (A) LENGTH: 8
 - (B) TYPE: amino acid
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 - (A) NAME / KEY : Modified site
 - (B) LOCATION: 1
 - (D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 - (A) NAME / KEY : Modified site
 - (B) LOCATION: 2
 - (D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 - (A) NAME / KEY : Modified site
 - (B) LOCATION: 3
 - (D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 - (A) NAME / KEY : Modified site
 - (B) LOCATION: 4
 - (D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 - (A) NAME / KEY : Modified site

- (B) LOCATION: 5
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 6
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 7
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 8
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = "Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine."
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO :1:

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	β-Ala
1					5			8	
- (2) INFORMATION FOR SEQ ID NO:2:
 (i) SEQUENCE CHARACTERISTICS
 (A) LENGTH: 8
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: Unknown
 (iii) MOLECULE TYPE: peptide
 (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 1
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 2
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 3
 (D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 4
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 5
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 6
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 7
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 8
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine."
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO :2:
- | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | β-Ala |
| 1 | | | | | 5 | | | | 8 | |

(2) INFORMATION FOR SEQ ID NO:3:

- (i) SEQUENCE CHARACTERISTICS
 (A) LENGTH:
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: Unknown
- (iv) MOLECULE TYPE: peptide
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 1
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:

- (A) NAME / KEY : Modified site
 (B) LOCATION: 2
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 3
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 4
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 5
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 6
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 7
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 8
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine."
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO :3:
- | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------|
| Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | Xaa | β-Ala |
| 1 | | | | | 5 | | | 8 | |
- (2) INFORMATION FOR SEQ ID NO:4:
- (i) SEQUENCE CHARACTERISTICS
 (A) LENGTH: 8
 (B) TYPE: amino acid

- (C) STRANDEDNESS: single
 (D) TOPOLOGY: Unknown
 (v) MOLECULE TYPE: peptide
 (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 1
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl)
 proline through position N1 of the thymine."
 (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 2
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl)
 proline through position N1 of the thymine."
 (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 3
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl)
 proline through position N1 of the thymine."
 (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 4
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl)
 proline through position N1 of the thymine."
 (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 5
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl)
 proline through position N1 of the thymine."
 (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 6
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl)
 proline through position N1 of the thymine."
 (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 7
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl)
 proline through position N1 of the thymine."
 (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 8
 (D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = “Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine.”

(xi) SEQUENCE DESCRIPTION: SEQ ID NO :4:

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	β-Ala
1					5			8	

(2) INFORMATION FOR SEQ ID NO:5:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 8

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 1

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 2

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 3

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = “Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle.”

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 4

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 5

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) **FEATURE:**

(A) NAME / KEY : Modified site

(B) LOCATION: 6

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

- (ix) FEATURE:
(A) NAME / KEY : Modified site
(B) LOCATION: 7
(D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
(A) NAME / KEY : Modified site
(B) LOCATION: 8
(D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(xi) SEQUENCE DESCRIPTION: SEO ID NO :2:

Xaa 1	Xaa	Xaa	Xaa	Xaa	Xaa 5	Xaa	Xaa	Xaa 8	β-Ala
----------	-----	-----	-----	-----	----------	-----	-----	----------	-------

(2) INFORMATION FOR SEO ID NO:6:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 12
(B) TYPE: amino acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: Unknown

(vi) MOLECULE TYPE: peptide

(ix) **FEATURE:**

- (A) NAME / KEY : Modified site
(B) LOCATION: 1
(D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = “ Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle.”

(ix) **FEATURE:**

- (A) NAME / KEY : Modified site
(B) LOCATION: 2
(D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) **FEATURE:**

- (A) NAME / KEY : Modified site
(B) LOCATION: 3
(D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = " Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."

(ix) **FEATURE:**

- (A) NAME / KEY : Modified site
(B) LOCATION: 4
(D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

- (A) NAME / KEY : Modified site

- (B) LOCATION: 5
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 6
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 7
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 8
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 9
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 10
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 11
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 12
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO :6:
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa-β-Ala
 1 5 10

(2) INFORMATION FOR SEQ ID NO:7:

(i) SEQUENCE CHARACTERISTICS

- (A) LENGTH: 12
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: Unknown

(vii) MOLECULE TYPE: peptide

(ix) FEATURE:

- (A) NAME / KEY : Modified site
- (B) LOCATION: 1
- (D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

- (A) NAME / KEY : Modified site
- (B) LOCATION: 2
- (D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

- (A) NAME / KEY : Modified site
- (B) LOCATION: 3
- (D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = " Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."

(ix) FEATURE:

- (A) NAME / KEY : Modified site
- (B) LOCATION: 4
- (D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

- (A) NAME / KEY : Modified site
- (B) LOCATION: 5
- (D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

- (A) NAME / KEY : Modified site
- (B) LOCATION: 6
- (D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = " Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."

(ix) FEATURE:

- (A) NAME / KEY : Modified site
- (B) LOCATION: 7
- (D) OTHER INFORMATION: /label = MODIFIED-SITE
/note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

096674-096675

(ix) **FEATURE:**

(B) LOCATION: 3

/note = “ Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine.”

(B) LOCATION: 4

/note = “Adenine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N9 of the adenine.”

(A) NAME / KEY : Modified site

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = “Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine.”

(A) NAME / KEY : Modified site

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = “ Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine.”

(A) NAME / KEY : Modified site

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(A) NAME / KEY : Modified site

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Adenine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N9 of the adenine."

(A) NAME / KEY : Modified site

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = “ Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine.”

(A) NAME / KEY : Modified site

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Adenine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N9 of the adenine."

(ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 11
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached at C4 of N1-(2-aminoethyl)
 proline through position N1 of the thymine."

(ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 12
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N1-(2-aminoethyl)
 proline at C4 of proline through position 1 of the heterocycle."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO :9:

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	β-ala
1				5							10	

- 28

note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 6

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Cytosine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the cytosine."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 7

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 8

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Adenine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N9 of the adenine."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 9

(D) OTHER INFORMATION: /label = MODIFIED-SITE

note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 10

(D) OTHER INFORMATION: /label = MODIFIED-SITE

note = "Cytosine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 11

(D) OTHER INFORMATION: /label = MODIFIED-SITE

note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 12

(D) OTHER INFORMATION: /label = MODIFIED-SITE

note = "Cytosine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 13

(D) OTHER INFORMATION: /label = MODIFIED-SITE

note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 14
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 15
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO :10:
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 Xaa β -ala
 1 5 10

INFORMATION FOR SEQ ID NO: 11:

- (i) SEQUENCE CHARACTERISTICS
 (A) LENGTH: 12
 (B) TYPE: amino acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: Unknown
- (ii) MOLECULE TYPE: peptide
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 1
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 2
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 3
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 4
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = "Guanine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N9 of the guanine."
- (ix) FEATURE:

- (A) NAME / KEY : Modified site
 (B) LOCATION: 5
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 6
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Guanine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the guanine."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 7
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 8
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 /note = "Adenine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N9 of the adenine."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 9
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 10
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 note = " Cytosine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 11
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 12
 (D) OTHER INFORMATION: /label = MODIFIED-SITE
 note = "Cytosine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."
- (ix) FEATURE:
 (A) NAME / KEY : Modified site
 (B) LOCATION: 13

(D) OTHER INFORMATION: /label = MODIFIED-SITE

note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 14

(D) OTHER INFORMATION: /label = MODIFIED-SITE

note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 15

(D) OTHER INFORMATION: /label = MODIFIED-SITE

note = " Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO :10:

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
		Xaa	β-ala							
1						5				10

INFORMATION FOR SEQ ID NO:12:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 10

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 1

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = " Guanine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 2

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 3

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = " Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 4

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = " Guanine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 5

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = " Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 6

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 7

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = " Cytosine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 8

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = " Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 7 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 9

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = " Cytosine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 10

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the thymine."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO :12:

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	β-Ala
1					5				8			

INFORMATION FOR SEQ ID NO:13:

(i) SEQUENCE CHARACTERISTICS

(A) LENGTH: 10

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: Unknown

(ii) MOLECULE TYPE: peptide

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 1

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Guanine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 2

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 3

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 4

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Guanine heterocycle is attached at C4 of N1-(2-aminoethyl) proline through position N1 of the guanine."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 5

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 9 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 6

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 7

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Cytosine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 8

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Adenine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 7 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 9

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = " Cytosine heterocycle is attached to N-acetyl (2-aminoethyl) glycine through the N-acetyl group at position 1 of the heterocycle."

(ix) FEATURE:

(A) NAME / KEY : Modified site

(B) LOCATION: 10

(D) OTHER INFORMATION: /label = MODIFIED-SITE

/note = "Thymine heterocycle is attached to N-acetyl (2-aminoethyl) , glycine through the N-acetyl group at position 1 of the heterocycle."

(xi) SEQUENCE DESCRIPTION: SEQ ID NO :2:

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	β-Ala
1					5				8			